

Short Title: MICROFLUIDIC CHIP HAVING INTEGRATED  
ELECTRODES  
First Inventor: Mingqi ZHAO  
Application No.: To Be Assigned  
Docket No.: 427922000920

Sheet 2 of 25

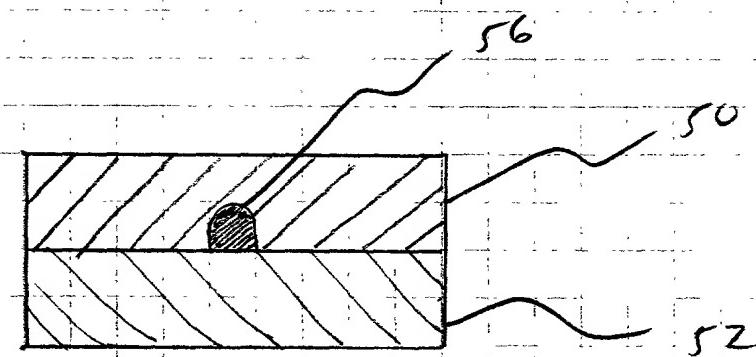


FIG. 3A

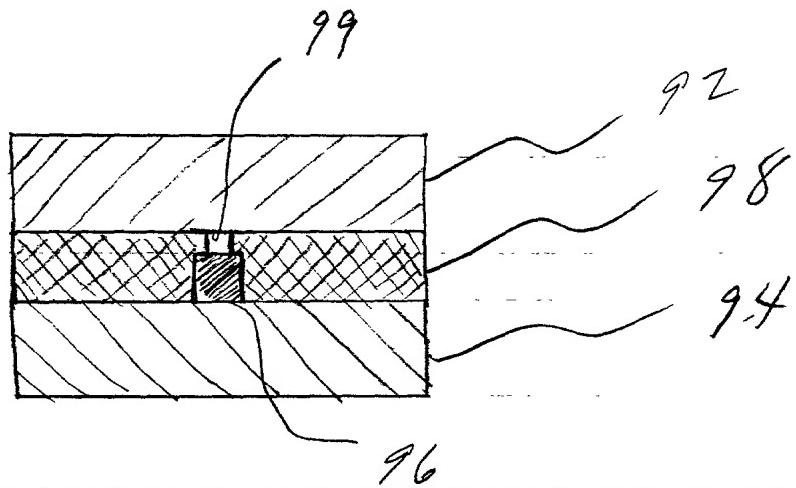


FIG. 3C

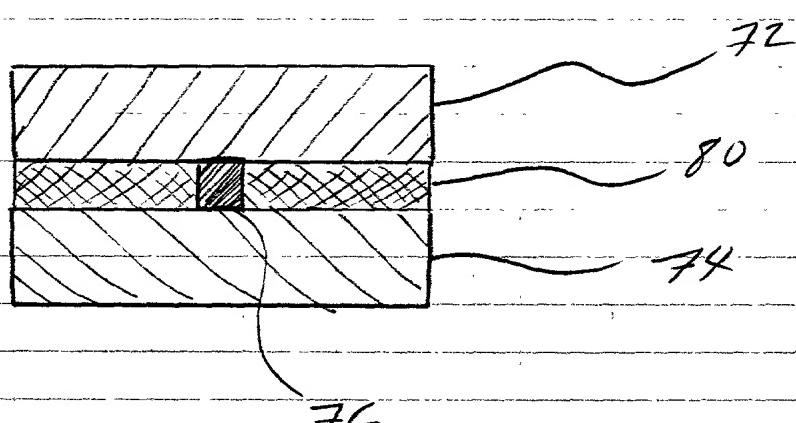


FIG. 3B

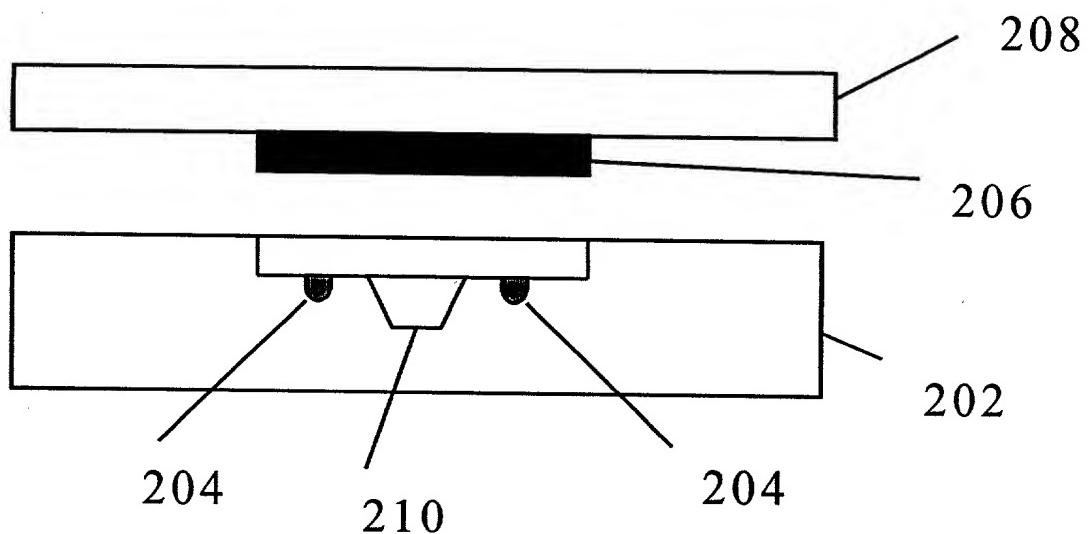


Figure 4A

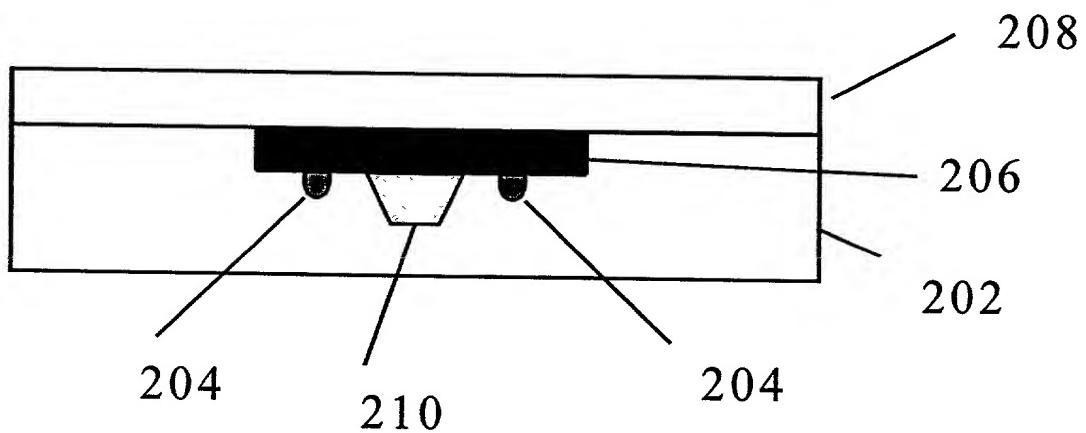


Figure 4B

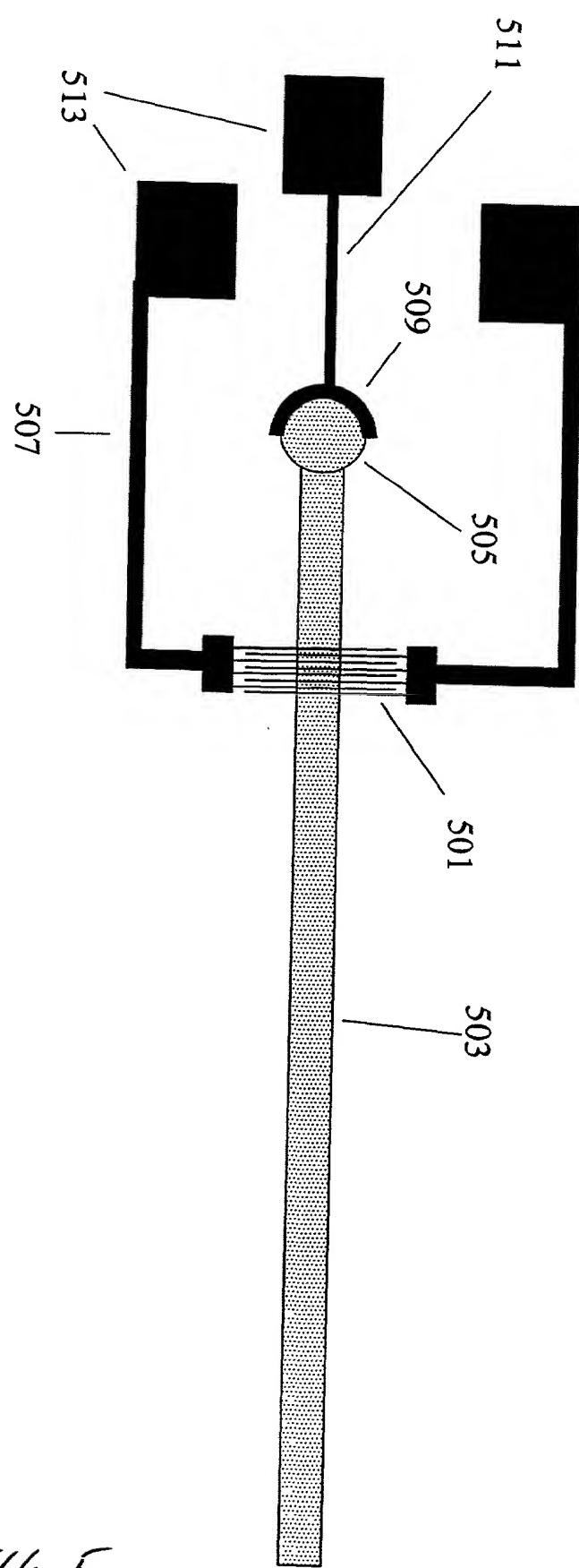
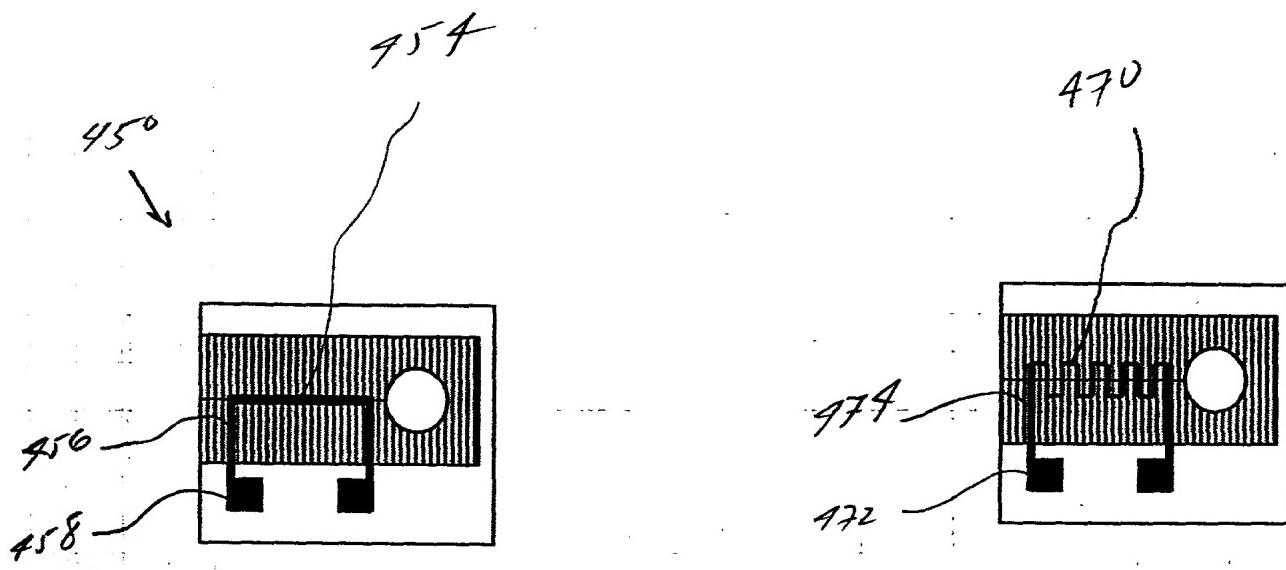
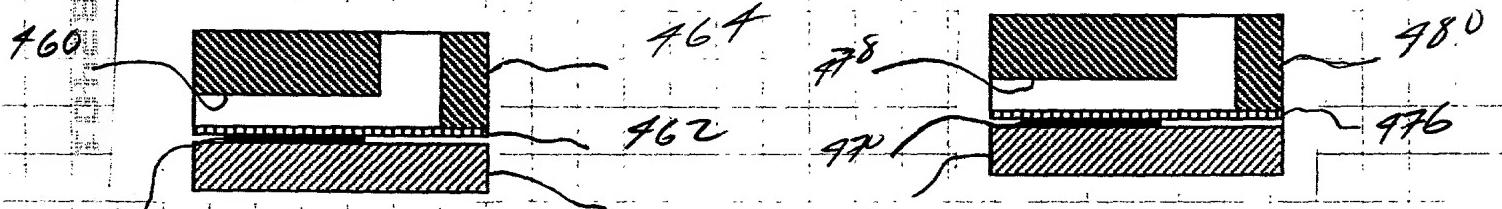


FIG. 5



F16. 6A

F16. 6C



F16. 6B

F16. 6D



Figure 7A

Figure 7B

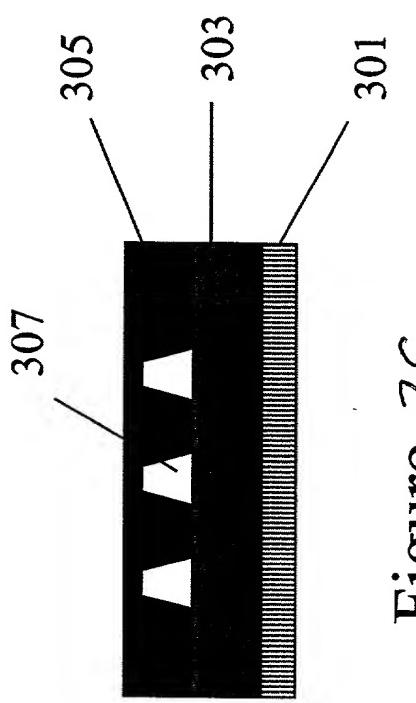
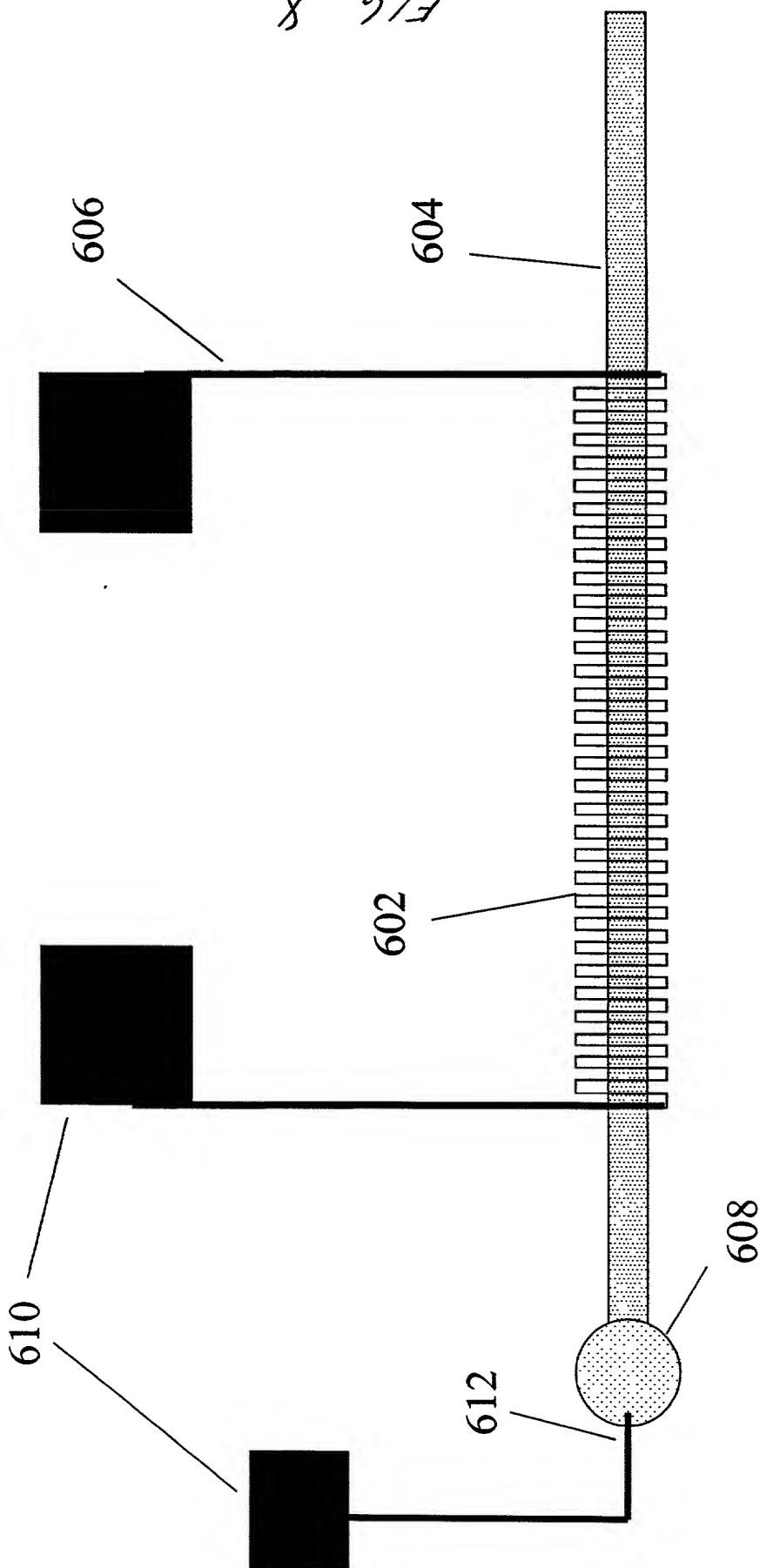


Figure 7C



Short Title: MICROFLUIDIC CHIP HAVING INTEGRATED ELECTRODES

First Inventor: Mingqi ZHAO  
Application No.: To Be Assigned  
Docket No.: 427922000920

Sheet 9 of 25

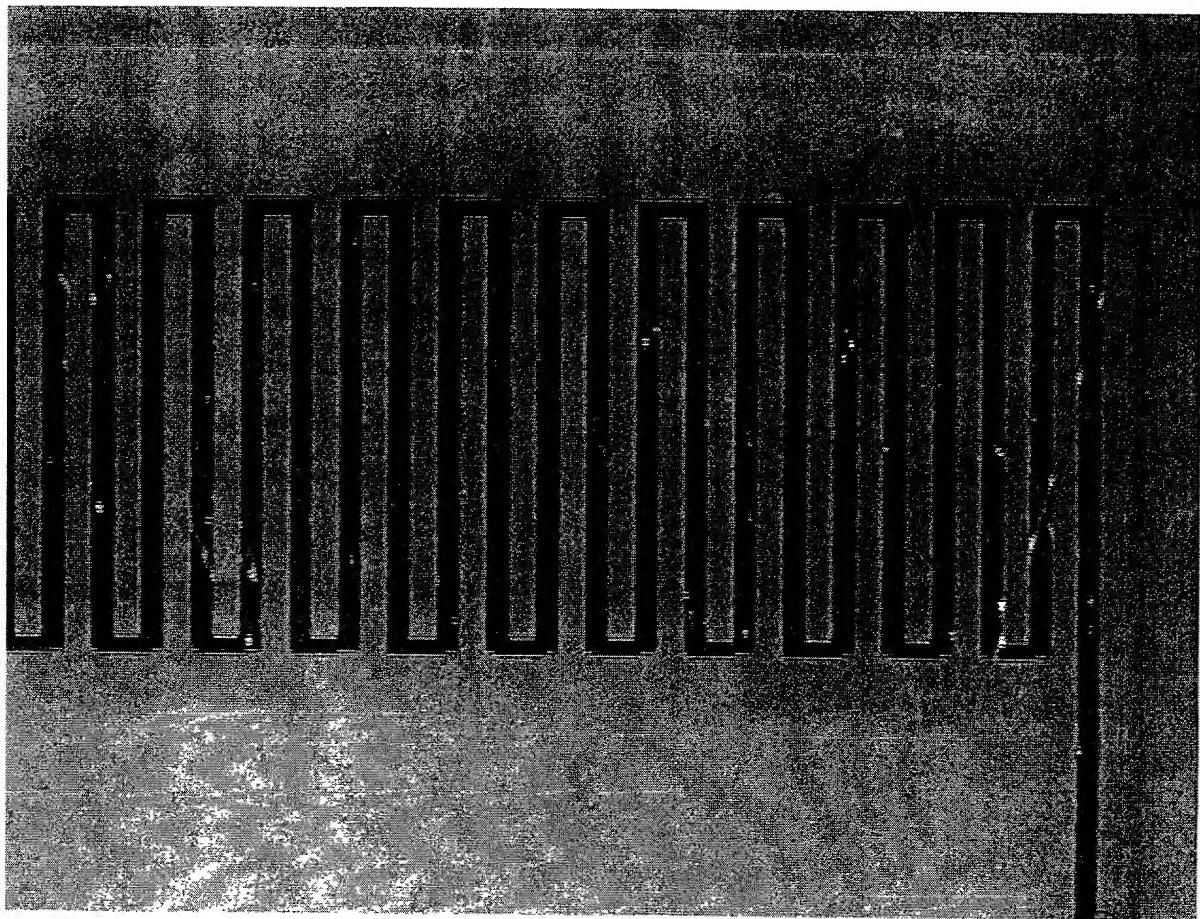


FIG. 9

160

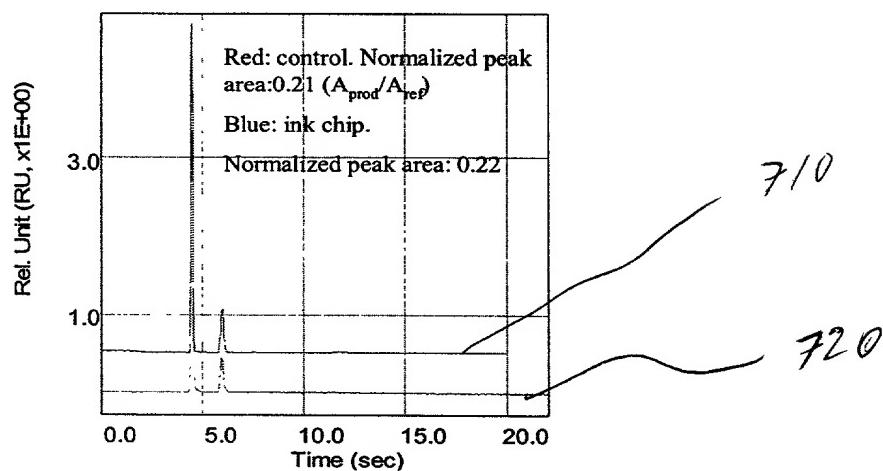


FIG. 10

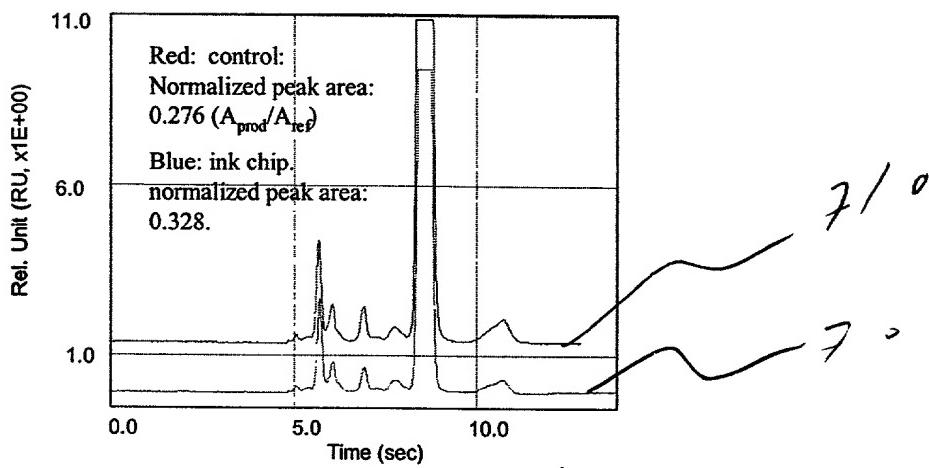


FIG. 11

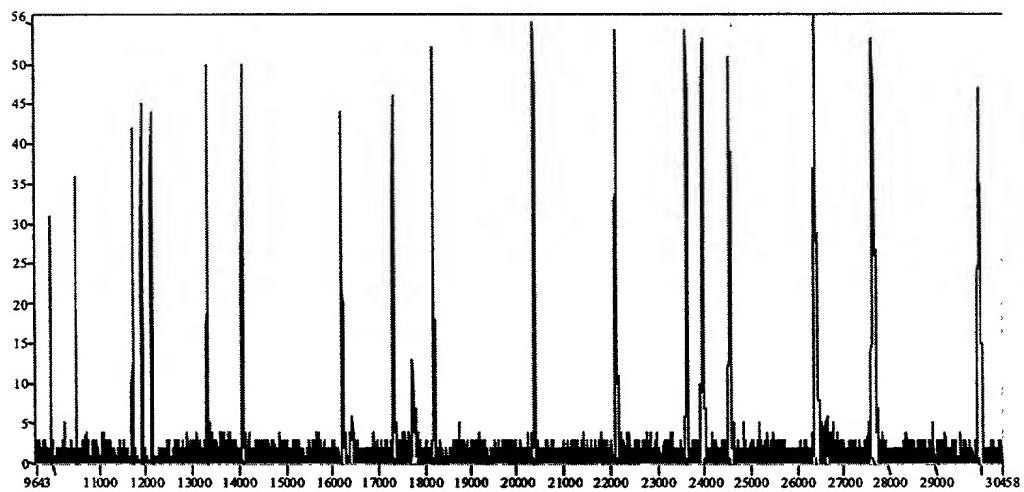


FIG. 12A

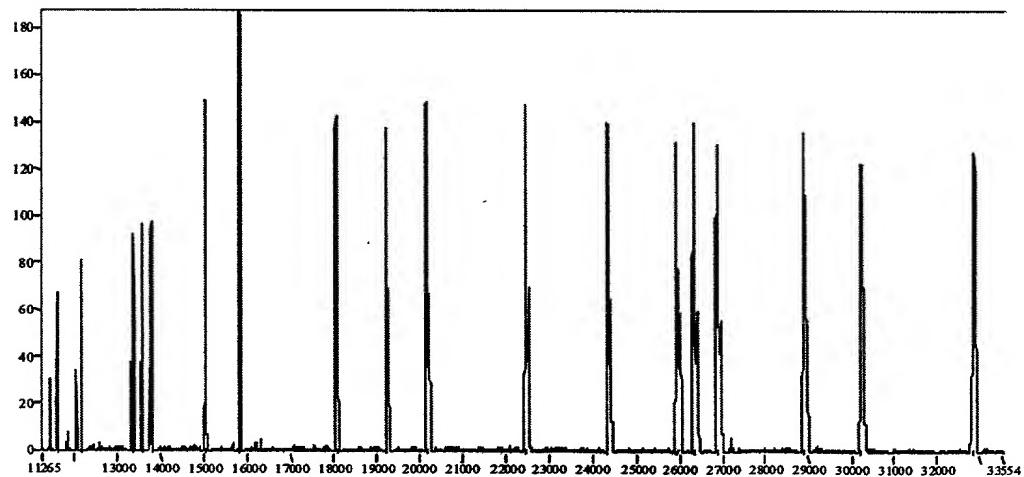


FIG. 12B

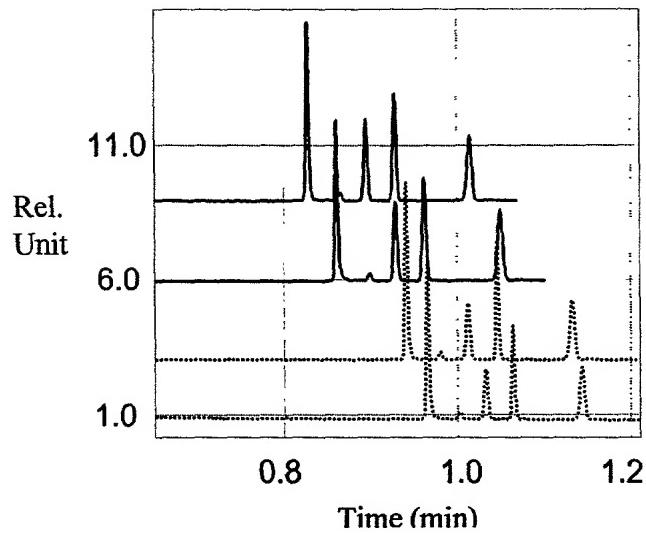


FIG. 13

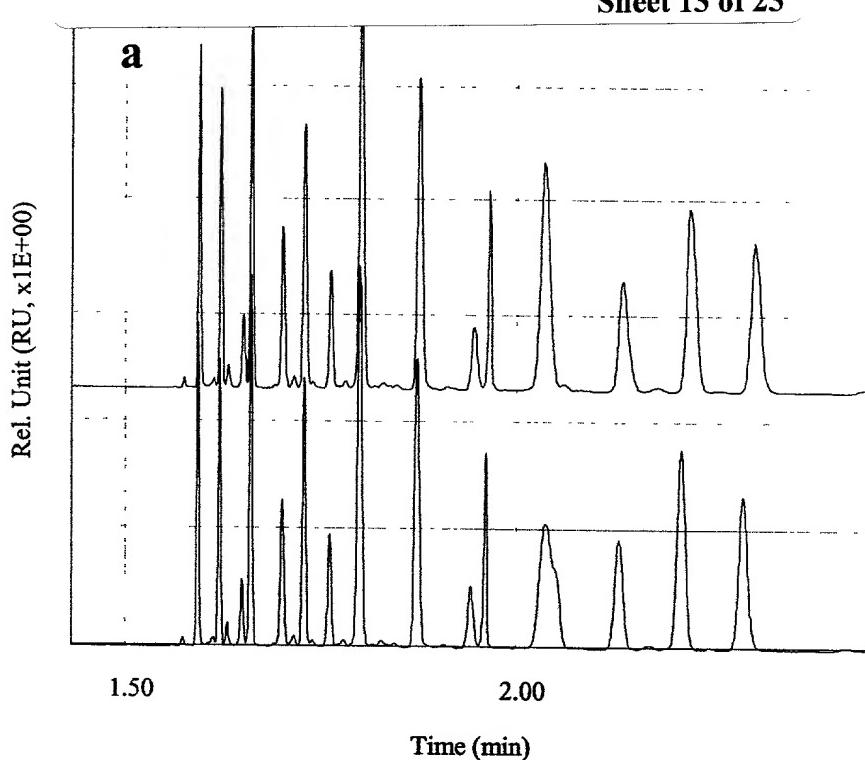


FIG. 14A

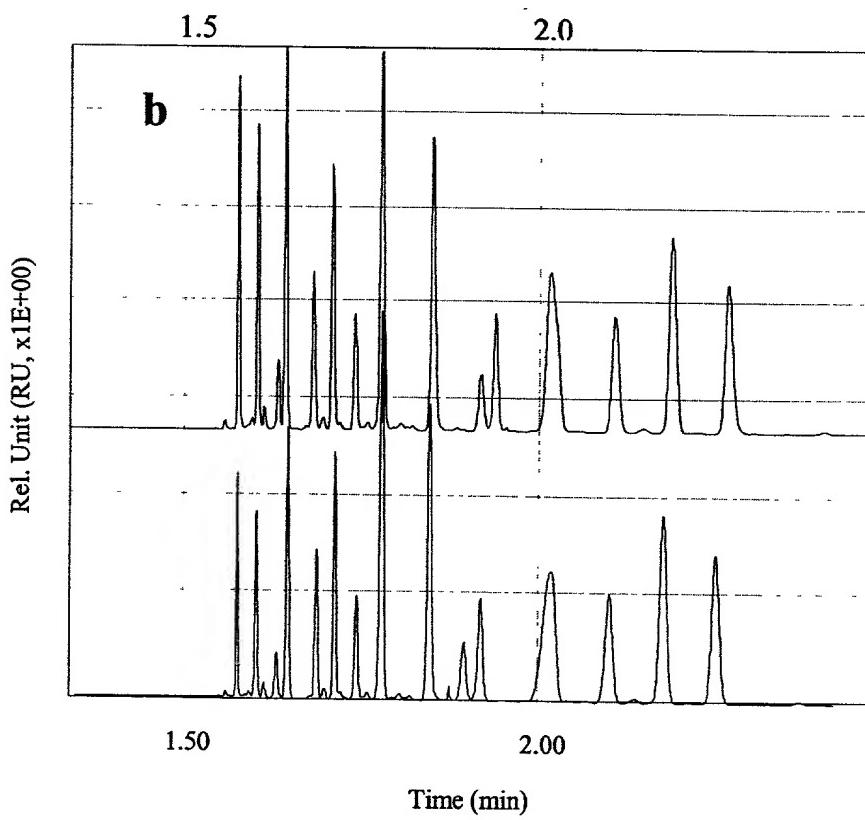


FIG. 14B

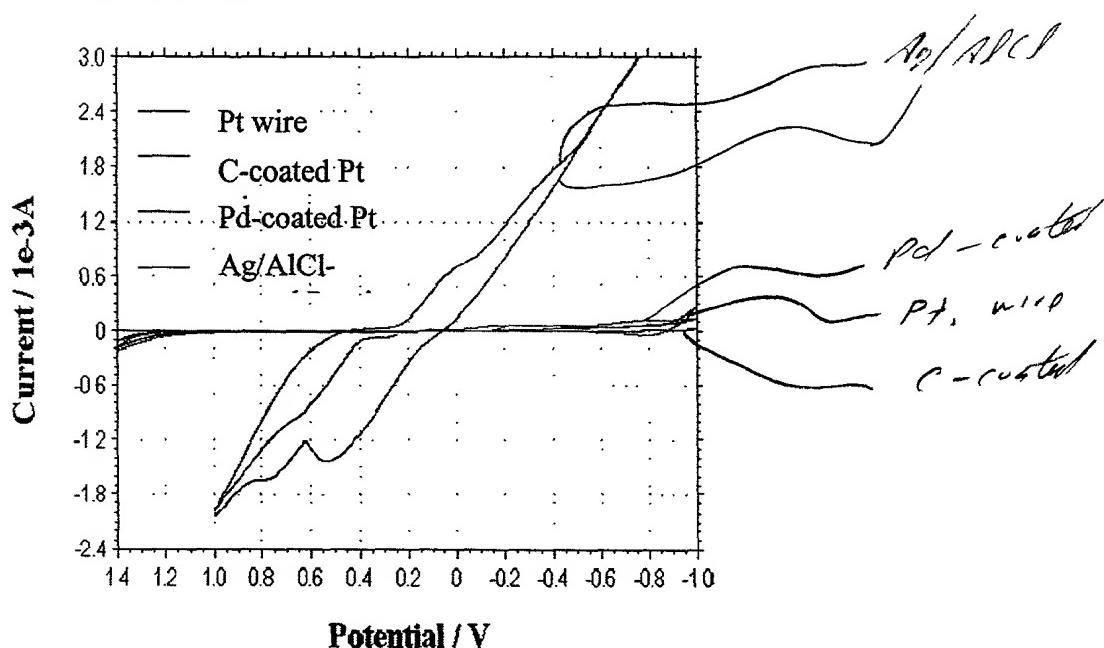


FIG. 15A

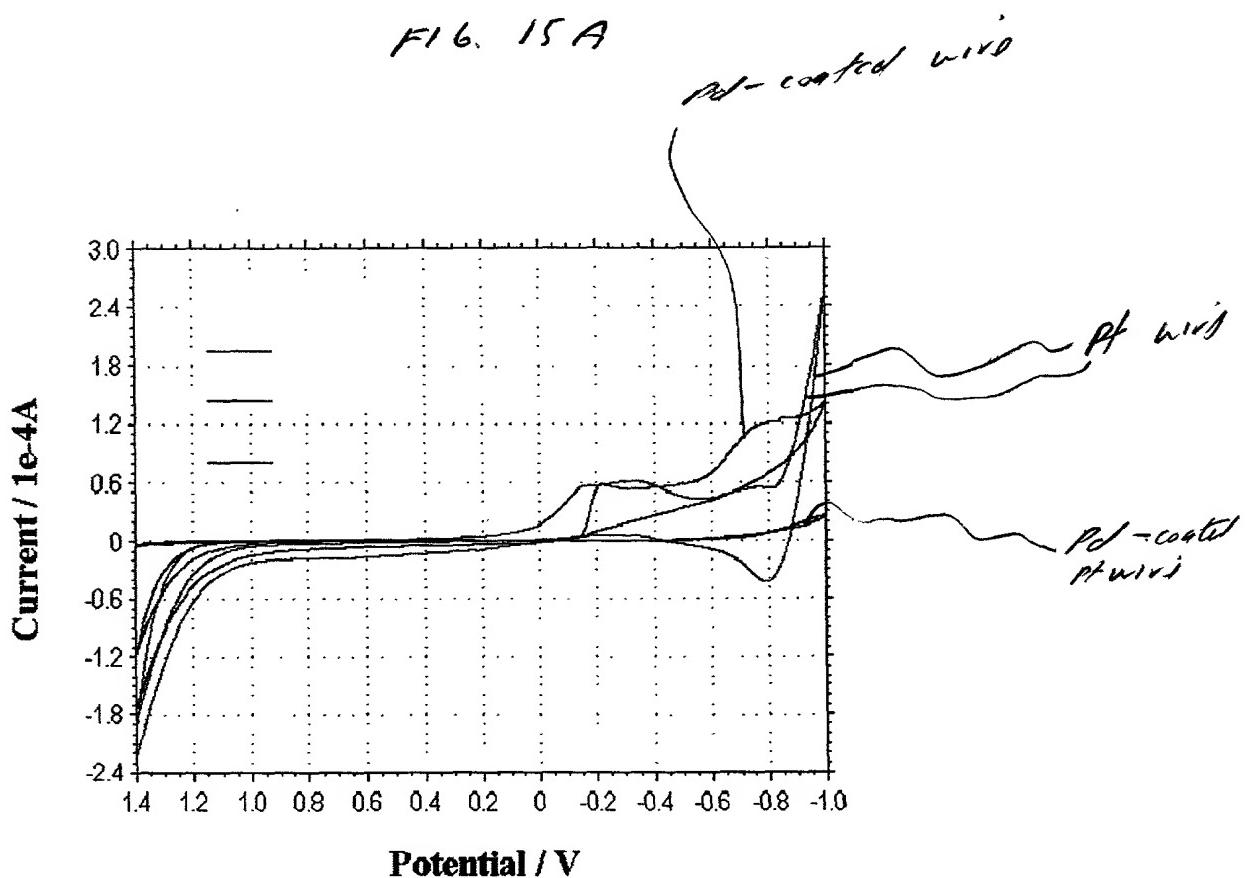


FIG. 15B

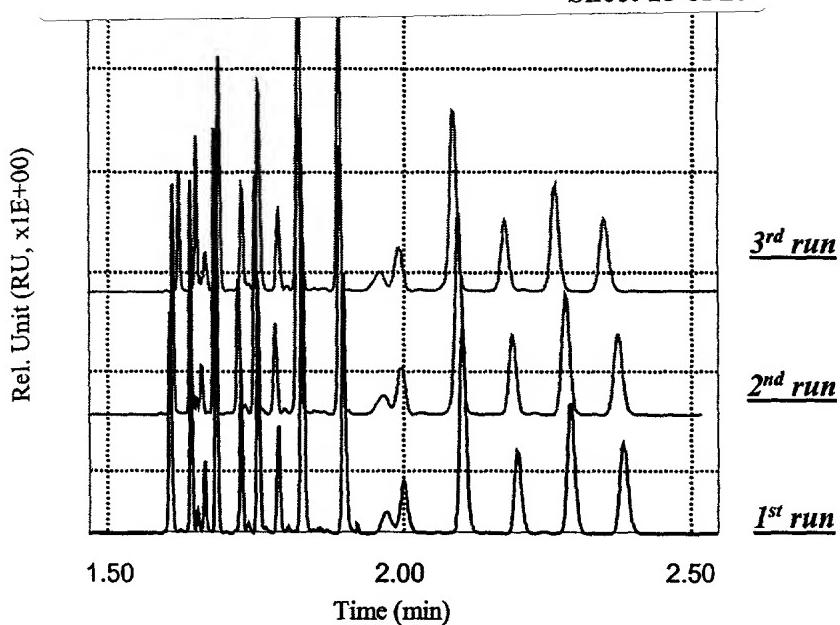


FIG. 16

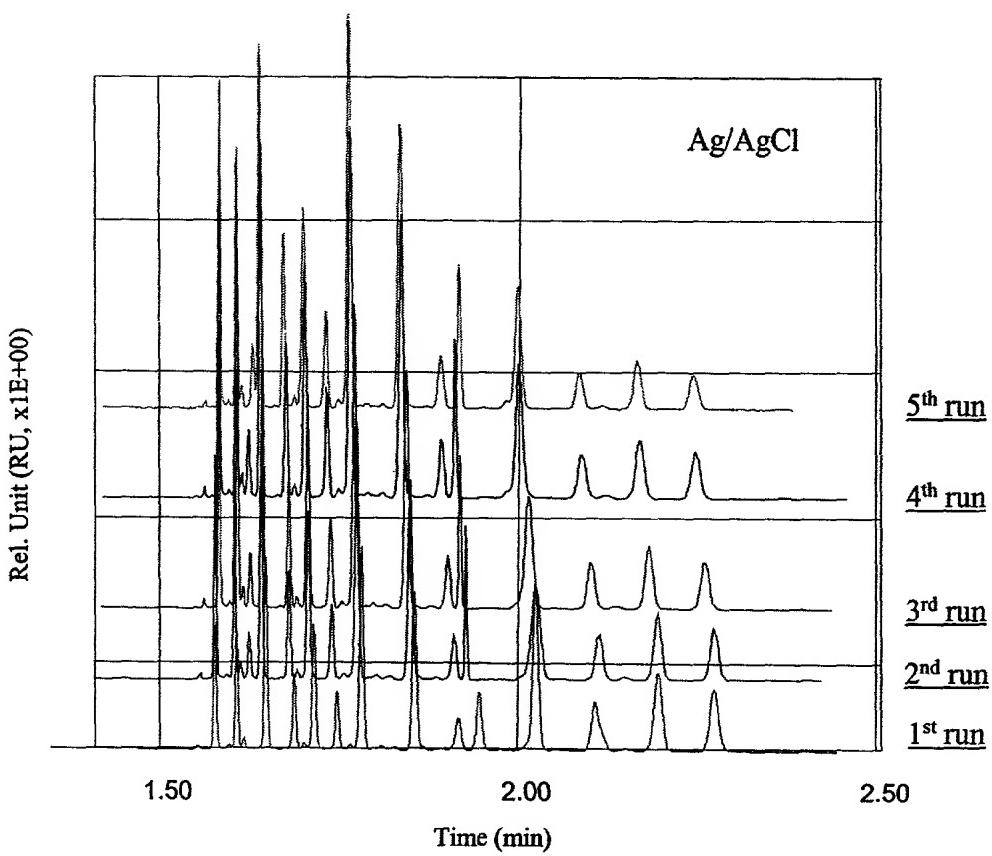


FIG. 17

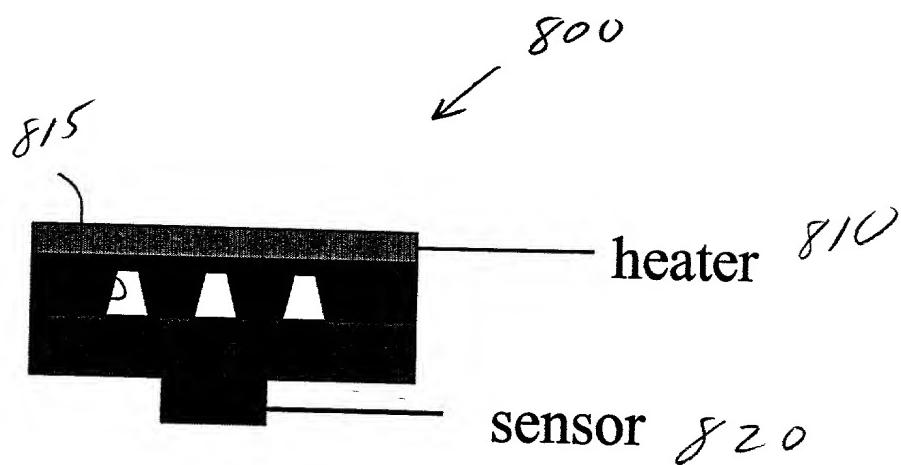


FIG. 18

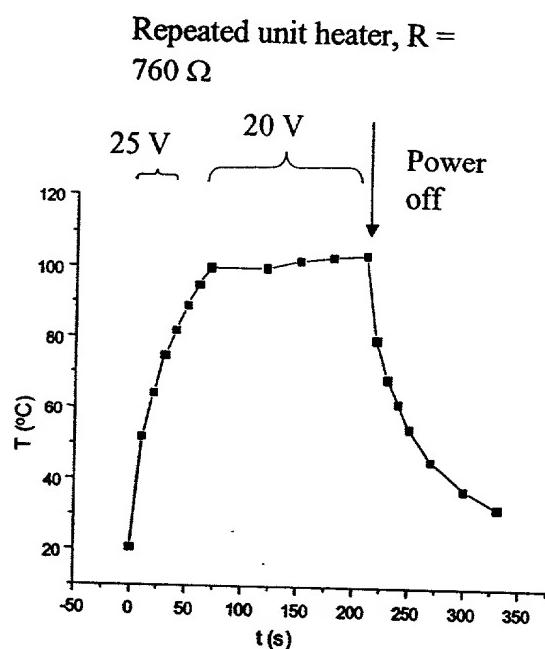


FIG. 19

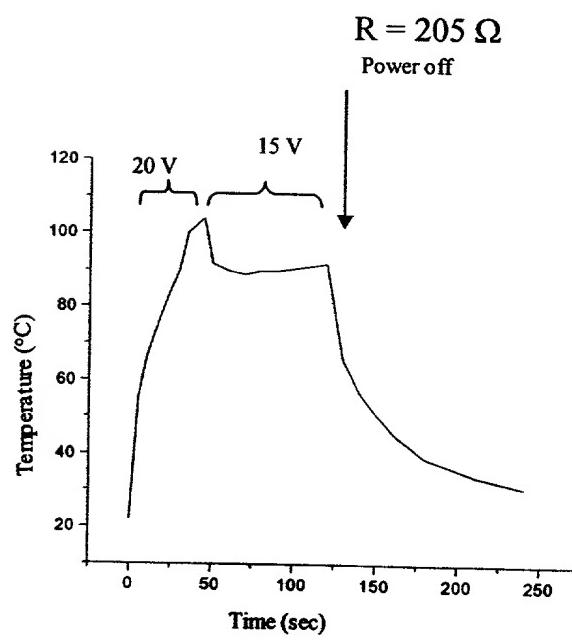


FIG. 20

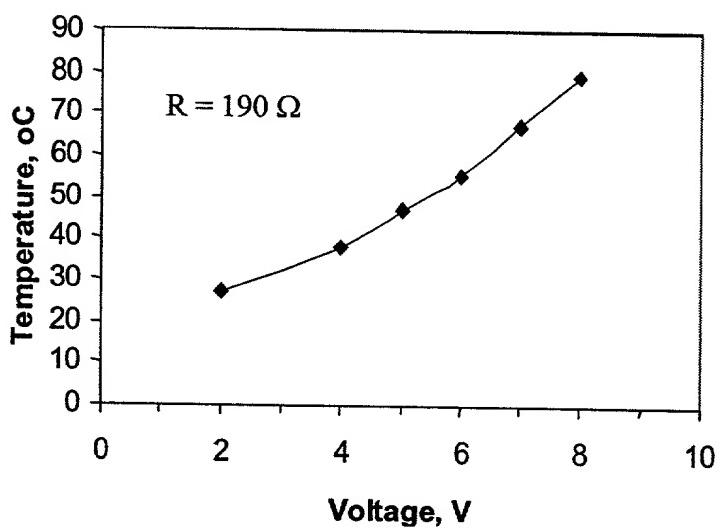


FIG. 21A

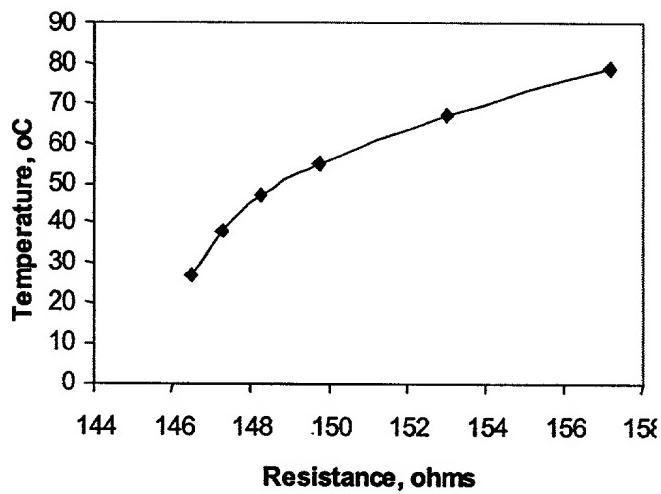


FIG. 21B

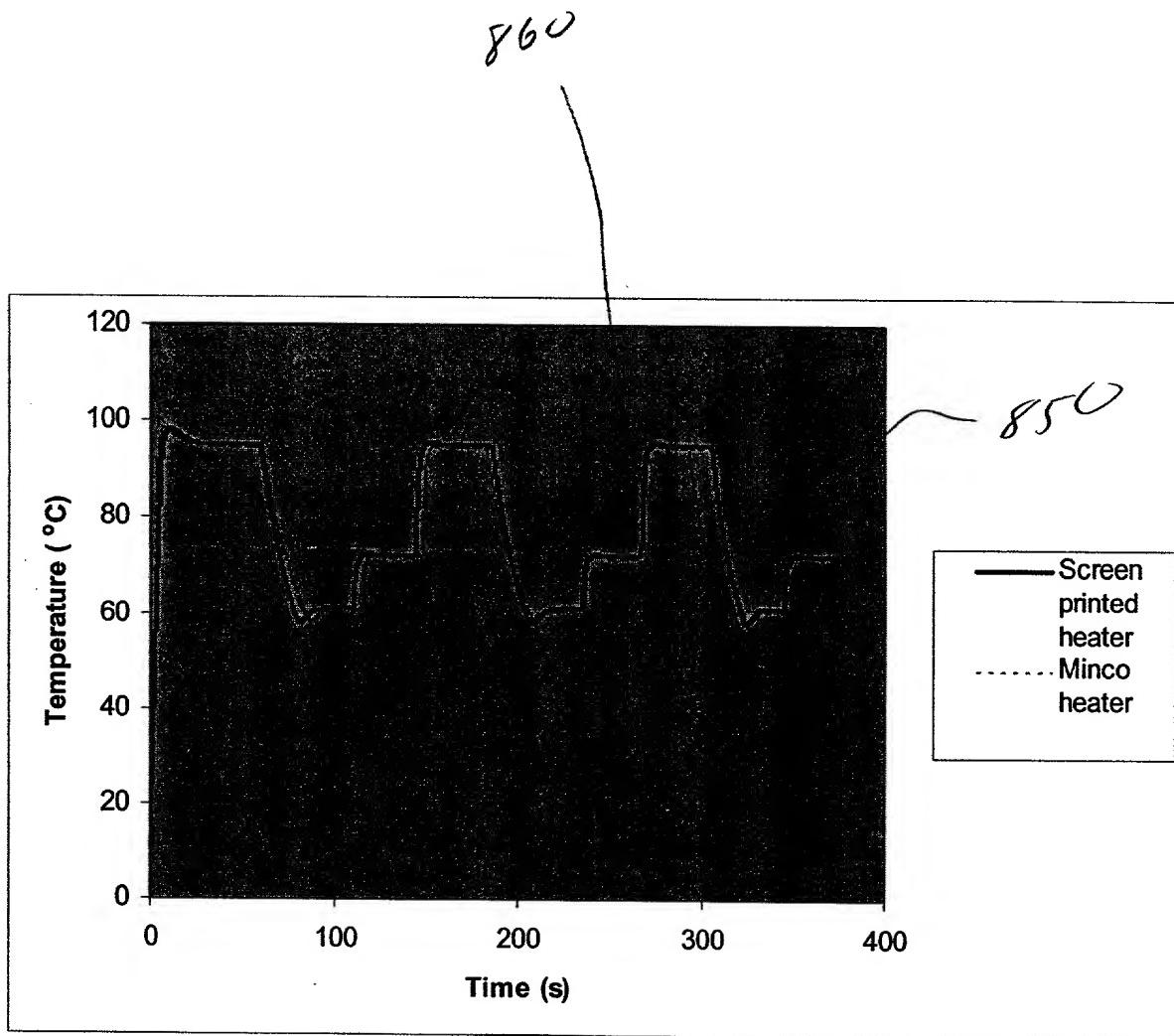


FIG. 21C

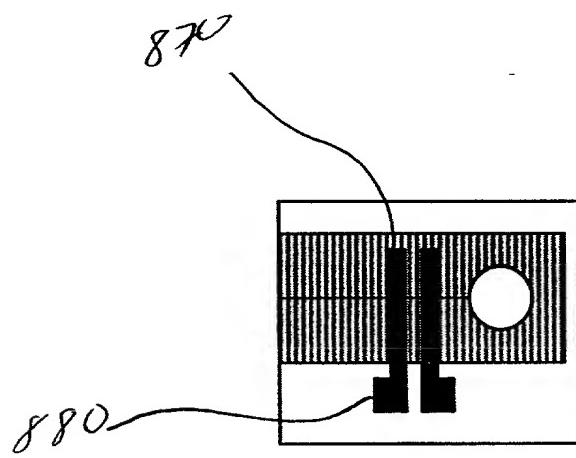


FIG. 22A

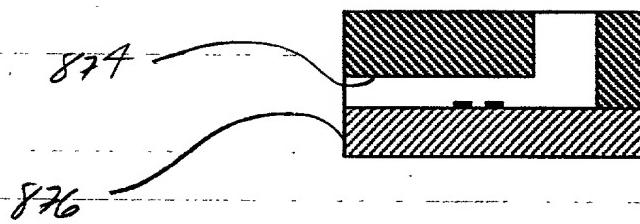


FIG. 22B

FIG. 23

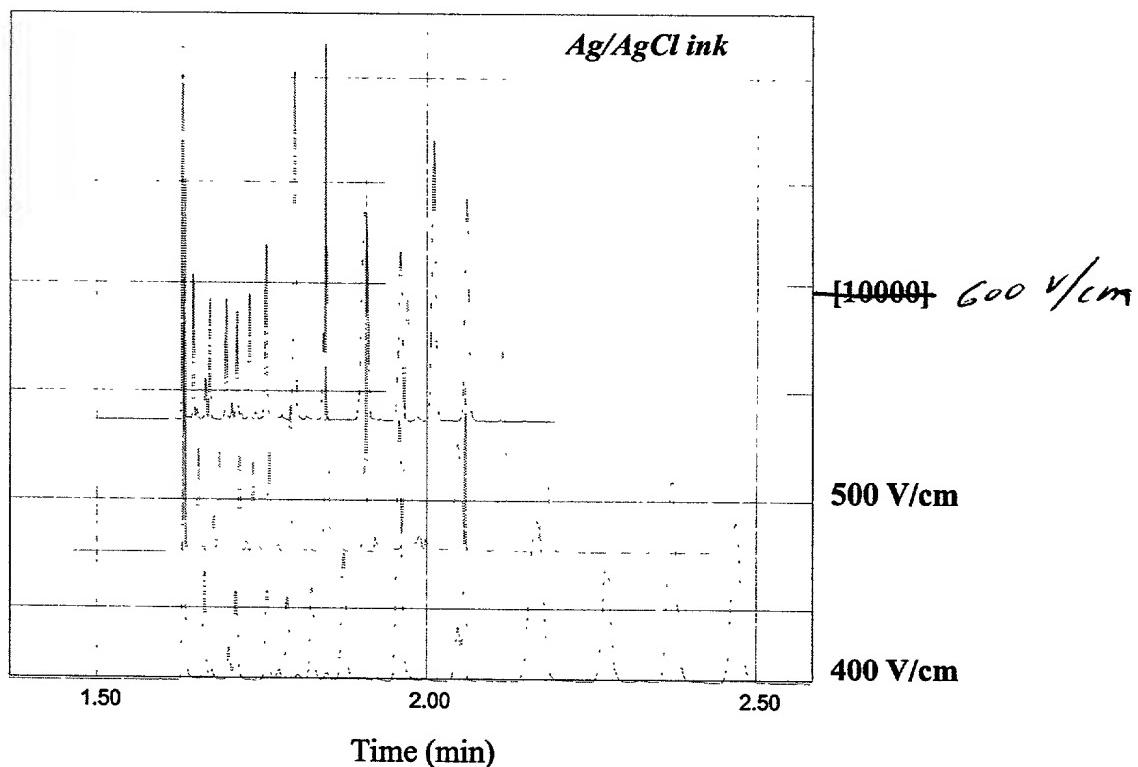


FIG. 24A

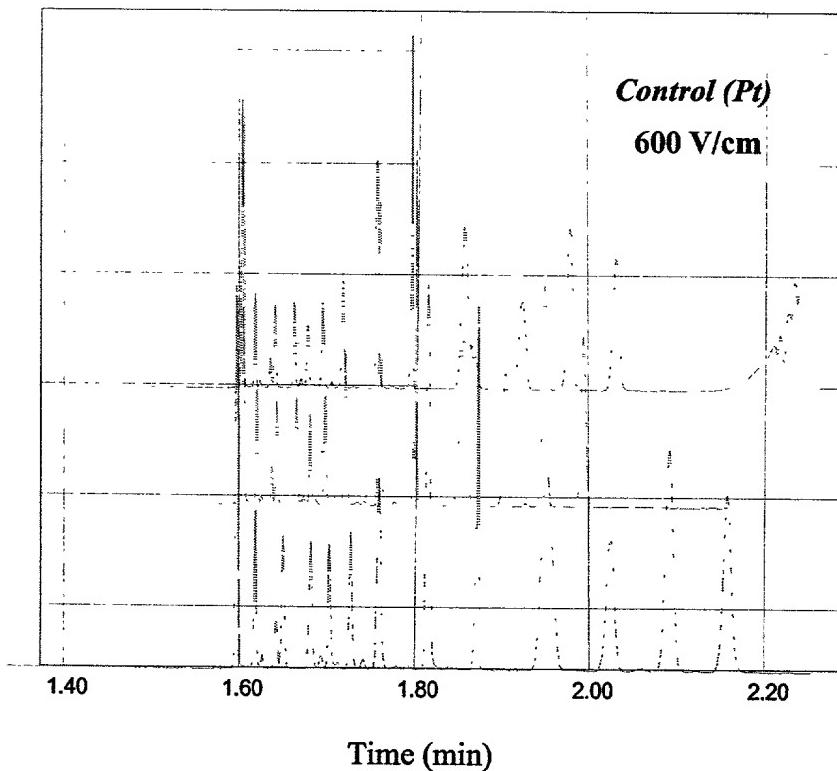


FIG. 24B

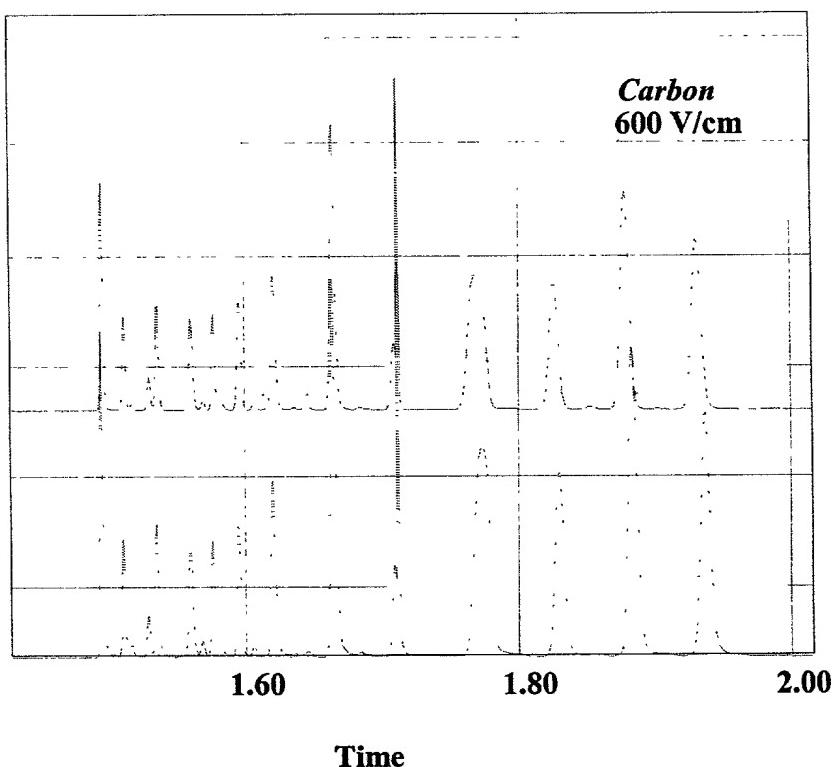
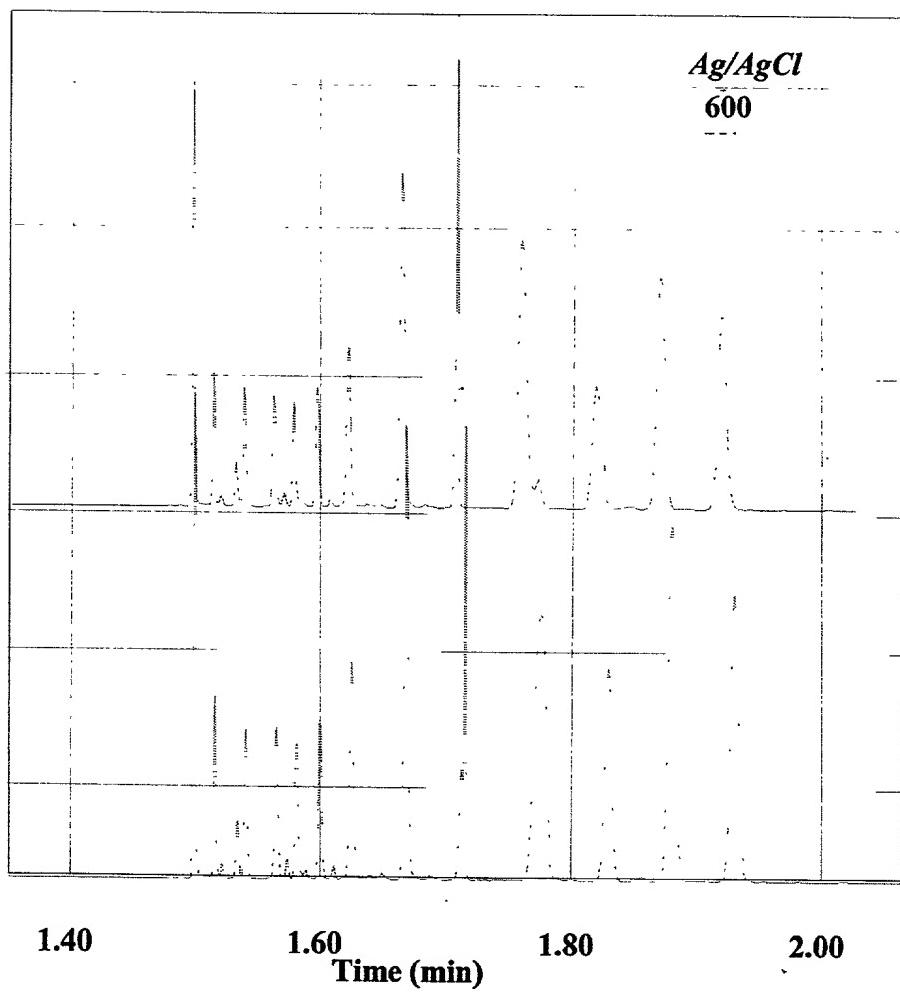


FIG. 24C



eTag Probes (-FC)	Migration time (min)				Normalized peak height				Half peak width				Resolution			
	Average		CV		Average		CV		Average		CV		Average		CV	
	Pt	Ink	Pt	Ink	Pt	Ink	Pt	Ink	Pt	Ink	Pt	Ink	Pt	Ink	Pt	Ink
163	1.56	1.50	6.61	0.19	0.69	0.56	2.81	4.74	0.15	0.12	33.81	4.60				
158	1.58	1.51	6.80	0.19	0.27	0.22	1.61	2.45	0.15	0.13	25.18	2.79	1.01	0.81	25.92	0.70
33	1.61	1.54	7.08	0.18	0.34	0.27	4.80	3.40	0.17	0.15	27.95	0.98	1.36	1.08	19.80	1.18
26	1.63	1.56	7.40	0.23	0.30	0.25	3.57	2.77	0.21	0.18	30.71	2.40	1.38	1.04	27.73	1.30
25	1.65	1.58	7.49	0.22	0.26	0.22	3.28	1.57	0.17	0.16	23.50	4.94	1.05	0.89	13.48	1.44
174	1.67	1.60	7.73	0.22	0.30	0.27	4.16	2.37	0.20	0.18	25.84	2.82	1.32	0.86	44.60	0.90
1	1.70	1.62	7.98	0.22	0.48	0.41	0.29	5.20	0.23	0.20	27.30	2.42	1.51	0.81	70.08	13.70
187	1.75	1.67	8.41	0.21	1.01	0.88	4.52	0.54	0.25	0.22	26.68	1.91	2.04	1.14	63.05	0.06
188	1.80	1.71	8.85	0.37	0.63	0.59	5.03	6.99	0.10	0.08	34.24	6.73	2.17	1.07	33.52	9.03
189	1.86	1.77	9.45	0.72	1.54	1.42	2.98	1.25	0.76	0.53	30.56	29.77	1.99	1.03	30.19	6.73
190	1.92	1.82	10.07	0.50	0.75	0.71	0.64	1.02	0.49	0.46	39.83	21.75	1.59	1.00	47.68	6.52
191	1.98	1.87	10.64	0.41	1.20	1.18	0.33	0.23	0.47	0.42	37.31	10.72	1.72	1.04	45.94	0.27
192	2.04	1.92	11.08	0.44	1.00	1.00	0.00	0	0.49	0.42	35.82	6.85	1.57	0.92	29.69	2.93

F16 25